WHAT IS CLAIMED IS:

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1. A display device comprising:

a light transmitting member;

a light source for irradiating said light transmitting member with light; and

a control mechanism for switching between total reflection and transmission the behavior of the light, incident into said light transmitting member from said light source, at an interface between said light transmitting member and an external region adjacent to said light transmitting member,

wherein at least a portion of the light emitted by said light source to irradiate said light transmitting member is output as a light component having directivity from said light transmitting member, and said light component is used to display images.

2. A device according to claim 1, wherein said control mechanism changes a refractive index of said external region.

3. A device according to claim 1, wherein said control mechanism comprises a transparent member opposing said light transmitting member and a moving mechanism for changing the state of said transparent member with respect to said light transmitting member between a contact state and a separated state.

4. A device according to claim 3, wherein said transparent member has elasticity, and

said moving mechanism changes a contact area between said transparent member and said light transmitting member in the contact state by deforming said transparent member.

5. A device according to claim 1, wherein images are displayed by using an intensity change of light transmitted through said interface.

6. A device according to claim 1, wherein images are displayed by using an intensity change of light totally reflected by said interface.

7. A device according to claim 1, further comprising a scattering surface for scattering output light from said light transmitting member.

8. A display device comprising:

a light transmitting member;

a light source for irradiating said light transmitting member with light; and

a plurality of control mechanisms arrayed on said light transmitting member to switch between total reflection and transmission the behavior of light, incident into said light transmitting member from said light source, at an interface between said light transmitting member and an external region adjacent to said light transmitting member,

wherein at least a portion of the light emitted by said light source to irradiate said light transmitting member is output as a light component having

directivity from said light transmitting member, and said light component is used to display images.

9. A device according to claim 8, wherein each of said control mechanisms changes a refractive index of said external region.

10. A device according to claim 8, wherein each of said control mechanisms comprises a transparent member opposing said light transmitting member and a moving mechanism for changing the state of said transparent member with respect to said light transmitting member between a contact state and a separated state.

11. A device according to claim 10, wherein

said transparent member has elasticity, and

said moving mechanism changes a contact area between said transparent member and said light transmitting member in the contact state by deforming said transparent member.

12. A device according to claim 8, wherein images are displayed by using an intensity change of light transmitted through said interface.

13. A device according to claim 8, wherein images are displayed by using an intensity change of light totally reflected by said interface.

14. A device according to claim 8, further comprising a scattering surface for scattering output light from said light transmitting member.

15. A display device comprising:

a light transmitting member;

a light transmitting material;

a light source for irradiating said light transmitting member with light; and

a control mechanism for changing a contact state of said light transmitting material with respect to said light transmitting member on an optical path of the light,

wherein at least a portion of the light emitted by said light source to irradiate said light transmitting member is output as a light component having directivity from said light transmitting member, and said light component is used to display images.

16. A device according to claim 15, wherein said control mechanism changes a contact area of said light transmitting material with respect to said light transmitting member on the optical path of the light.

17. A device according to claim 15, wherein said light transmitting material is a solid.

18. A device according to claim 17, wherein said light transmitting material is an elastic material.

19. A device according to claim 15, wherein images are displayed by using an intensity change of light transmitted through an interface at which said light transmitting material is in contact with said light transmitting member.

20. A device according to claim 15, wherein images

are displayed by using an intensity change of light reflected by an interface at which said light transmitting material is in contact with said light transmitting member.

21. A device according to claim 15, further comprising a scattering surface for scattering output light from said light transmitting member.

22. A display device comprising:

a light transmitting member;

a light transmitting material;

a light source for irradiating said light transmitting member with light; and

a plurality of control mechanisms arrayed on said light transmitting member to change a contact state of said light transmitting material with respect to said light transmitting member on an optical path of the light,

wherein at least a portion of the light emitted by said light source to irradiate said light transmitting member is output as a light component having directivity from said light transmitting member, and said light component is used to display images.

23. A device according to claim 22, wherein each of said control mechanisms changes a contact area of said light transmitting material with respect to said light transmitting member on the optical path of the light.

24. A device according to claim 22, wherein said light transmitting material is a solid.

25. A device according to claim 23, wherein said light transmitting material is an elastic material.

26. A device according to claim 22, wherein images are displayed by using an intensity change of light transmitted through an interface at which said light transmitting material is in contact with said light transmitting member.

27. A device according to claim 22, wherein images are displayed by using an intensity change of light reflected by an interface at which said light transmitting material is in contact with said light transmitting member.

28. A device according to claim 22, further comprising a scattering surface for scattering output light from said light transmitting member.

29. A display device comprising:

a plate-like light transmitting member;

a light source placed on the side of one principle surface of said light transmitting member to irradiate the one principle surface with light;

a transparent member capable of moving close to and away from the other principle surface of said light transmitting member; and

a moving mechanism for changing the state of said transparent member with respect to the other principle

surface of said light transmitting member between a contact state and a separated state.

30. A device according to claim 29, wherein said transparent member has elasticity, and said moving mechanism changes a contact area between said transparent member and said light transmitting member in the contact state by deforming said transparent member.

31. A device according to claim 29, wherein images are displayed by using an intensity change of light emerging from the other principle surface of said light transmitting member.

32. A device according to claim 29, wherein images are displayed by using an intensity change of light emerging from the one principle surface of said light transmitting member.

33. A device according to claim 29, further comprising a scattering surface for scattering light emerging from said light transmitting member.

34. A display device comprising:

a plate-like light transmitting member;

a light source placed on the side of one principle surface of said light transmitting member to irradiate the one principle surface with light;

a plurality of transparent members capable of moving close to and away from the other principle surface of said light transmitting member; and

a plurality of moving mechanisms for changing the states of said plurality of transparent members with respect to the other principle surface of said light transmitting member between a contact state and a separated state.

35. A device according to claim 34, wherein

said plurality of transparent members have elasticity, and

said plurality of moving mechanisms change contact areas between said plurality of transparent members and said light transmitting member in the contact state by deforming said plurality of transparent members.

36. A device according to claim 34, wherein images are displayed by using an intensity change of light emerging from the other principle surface of said light transmitting member.

37. A device according to claim 34, wherein images are displayed by using an intensity change of light emerging from the one principle surface of said light transmitting member.

38. A device according to claim 34, further comprising a scattering surface for scattering light emerging from said light transmitting member.

39. A display device comprising:

a light transmitting member;

a light source for irradiating said light transmitting member with light;

a supply mechanism for supplying a liquid onto said light transmitting member; and

a removal mechanism for removing the liquid supplied onto said light transmitting member.

40. A device according to claim 39, further comprising, as said supply mechanism and said removal mechanism, a control mechanism for supplying a liquid onto said light transmitting member and removing the liquid supplied onto said light transmitting member.

41. A device according to claim 39, wherein images are displayed by using an intensity change of light entering from said light transmitting member into the liquid supplied onto said light transmitting member.

42. A device according to claim 39, wherein images are displayed by using an intensity change of light emerging from said light transmitting member without entering the liquid supplied onto said light transmitting member.

43. A device according to claim 39, further comprising a scattering surface for scattering output light from said light transmitting member.

44. A display device comprising:

a light transmitting member;

a light source for irradiating said light transmitting member with light;

a plurality of supply mechanisms for supplying a liquid onto said light transmitting member; and

a plurality of removal mechanisms for removing the liquid supplied onto said light transmitting member.

45. A device according to claim 44, further comprising, as said plurality of supply mechanisms and said plurality of removal mechanisms, a plurality of control mechanisms for supplying a liquid onto said light transmitting member and removing the liquid supplied onto said light transmitting member.

46. A device according to claim 44, wherein images are displayed by using an intensity change of light entering from said light transmitting member into the liquid supplied onto said light transmitting member.

47. A device according to claim 44, wherein images are displayed by using an intensity change of light emerging from said light transmitting member without entering the liquid supplied onto said light transmitting member.

48. A device according to claim 44, further comprising a scattering surface for scattering output light from said light transmitting member.

49. A display method comprising the step of switching between total reflection and transmission a behavior of light, incident into a light transmitting member from a light source, at an interface between said light transmitting member and an external region adjacent to said light transmitting member,

wherein one of light transmitted through said

interface and light totally reflected by said interface is output as a light component having directivity from said light transmitting member, and said light component is used to display images.

50. A display method comprising the step of irradiating a light transmitting member with light from a light source and changing a contact state of a light transmitting material with respect to said light transmitting member on an optical path of the light,

wherein at least a portion of the light incident into said light transmitting member from said light source is output as a light component having directivity from said light transmitting member, and said light component is used to display images.

51. A display method comprising the step of irradiating one principle surface of a plate-like light transmitting member with light from a light source and moving a transparent member into contact with and away from the other principle surface of said light transmitting member,

wherein images are displayed by using an intensity change of output light from said light transmitting member, which occurs when said transparent member is moved.

52. A display method comprising the steps of supplying a liquid onto a light transmitting member while irradiating said light transmitting member with

light, and removing the liquid supplied onto said light transmitting member while irradiating said light transmitting member with light,

wherein images are displayed by using an intensity change of output light from said light transmitting member, which occurs when the liquid is supplied onto and removed from said light transmitting member.